Remarks of U.S. Representative Judy Biggert
Chairman, Science Subcommittee on Energy
H.R. 5143, the H-Prize Act of 2006
April 27, 2006

Thank you, Mr. Chairman. I want to thank you for holding this hearing today, and giving this committee an opportunity to discuss the creation an H-Prize. I also want to thank the bill's sponsor, Mr. Inglis, for sharing a draft of his legislation with me and seeking my input prior to its introduction.

As Chairman of the Energy Subcommittee, I participated in a meeting of various hydrogen and fuel cell stakeholders that Mr. Inglis convened in December of last year to discuss the idea of an H-Prize.

At that meeting, I urged all involved to keep in mind the recommendations included in a 1999 National Academy of Engineering report on inducement prizes. The Academy recommended that prizes should complement – not substitute for – direct federal support of research and development. The Academy also advised that rewards should be commensurate with the effort required and the goals sought. To me, this advice is just good common sense.

Unfortunately, I do not believe this legislation meets these criteria. In particular, I do not believe that authorizing a $100 million prize for the development of "transformational technologies" meets either of these criteria. This is a criticism that I shared with the bill's sponsor well in advance of the bill's introduction.

According to the Organization for Economic Cooperation and Development, the market for fuel cells and related products is projected to reach $29 billion by 2011. With potential applications in transportation, power generation and portable power, the market for fuel cells and related products, the OECD estimates that this market could grow to over $1.7 trillion by 2021.

Isn't a billion or trillion dollar market prize enough? Isn't this enough of an incentive to encourage scientists, engineers, entrepreneurs, and energy companies large and small to invest in the development of fuel cells and new and innovative ways to produce and store hydrogen?

The 2005 Solar Decathalon, while structured differently than the H-Prize, attracted 20 qualified teams. Each team received $5000 in federal funds to leverage between $200,000 and $300,000 in outside investment for their projects. The result was a diverse combination and outstanding display of solar and other advanced energy technologies. Total cost to the DOE: $1 million.

According to press accounts, two dozen teams from five different countries competed for the $10 million Ansari X-Prize. But the best part about the X-Prize is that it didn't cost taxpayers a penny.

I think it's safe to say that the market for hydrogen and fuel cell technologies dwarfs the market for spaceships, and yes, even solar technologies – combined.

To put this in another context, the prize of all prizes – the Nobel Prize – is only a $1.3 million award.

Why haven't we ever offered a prize to find a cure for cancer? Don't we already know more about hydrogen and fuel cells than we know about cancer?

In addition, the Energy Policy Act of 2005, which just became law in August of last year, authorized over $3.3 billion for research into the production and distribution of hydrogen and the development of fuel cells.

I also want to observe that while the last section of the bill does explicitly prohibit any H-Prize *program* from substituting for federal research and development *programs,* in no way does this provision prevent the substitution of *funding*. Substituting direct federal *support* for research and development with a prize is exactly the opposite of what the National Academy of Engineering recommended. Neither the President nor Congress is going to be able to find the money for such a prize without taking funding out of other vital energy research and development programs.

Properly designed, an H-Prize could provide useful feedback and constructive direction to the Hydrogen Fuel Initiative. Designed with a specific goal in mind, prizes could spur the development of technologies linking the critical pieces of the hydrogen economy – those that make, move, store, and burn hydrogen. But I am in no way convinced that we need to spend $100 million on such a prize.

Before closing, I want to acknowledge Mr. Inglis' insight. We too often focus exclusively on whether research programs are meeting milestones and timelines, but forget to keep in mind the goal of fostering innovation. We also tend to focus on the dominant funding mechanisms – grants, contracts, and cooperative agreements – without considering the full range of options. Mr. Inglis is making us consider our decisions more fully – and rightly so. I look forward to continuing to work with the bill's sponsor to address my concerns, and I yield back the balance of my time.